

**Report of Subsurface Exploration and
Geotechnical Engineering Evaluation
Jenkins Road Fire Station
Tyrone, Georgia
PGC Project No. 111177.01**

PIEDMONT
GEOTECHNICAL CONSULTANTS, INC.

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July 21, 2011

Mallett Consulting, Inc.
101 Devant Street, Suite 804
Fayetteville, Georgia 30214

Attention: David Jaeger, P.E.


Subject: **Report of Subsurface Exploration and
Geotechnical Engineering Evaluation**
Jenkins Road Fire Station
Tyrone, Georgia
PGC Project No. 111177.01

Dear David:

Piedmont Geotechnical Consultants, Inc., is pleased to provide this report of our subsurface exploration and geotechnical engineering evaluation for the referenced project. The field study and this report were accomplished in general accordance with PGC Proposal No. P11298, dated July 7, 2011.

The following report will present a brief summary of our pertinent findings and recommendations followed by our understanding of the proposed construction, methods of exploration employed, site and subsurface conditions encountered, and conclusions and recommendations regarding the geotechnical aspects of the project. Should you have any question regarding items discussed in this report, please do not hesitate to contact the undersigned.

Sincerely,
Piedmont Geotechnical Consultants, Inc.


Kevin A. Burnette, P.G.
Project Geologist



W. Michael Ballard, P.E.
Senior Registered Engineer



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1.0 SUMMARY

The following is a brief summary of our pertinent findings and recommendations. The reader is referred to the remaining text of this report for elaboration on these items.

1. The property appears generally suitable for the proposed construction, from a geotechnical standpoint.
2. General subsurface conditions consist predominantly of topsoil and cultivated soils at the ground surface underlain by moderate consistency residual soils. Previously placed fill was encountered in borings B-2 and B-7 to depths of 2 feet below the ground surface. The previously placed fill is above the finish floor elevation for the Fire Station in B-7 and will likely be cut and used as fill during grading. No rock, partially weathered rock or groundwater was encountered to the depths drilled.
3. The structures may be supported by conventional shallow foundations, bearing on residual soil or structural fill, using a net allowable bearing pressure of 3,000 psf.
4. The on-site soils are visually suitable for reuse as structural fill. Moisture conditioning may be necessary, depending on the weather conditions at the time of construction. Reuse of cultivated soils is significantly impacted by weather conditions immediately prior to construction and they will likely be excessively wet during periods of wet weather and in the winter months.
5. Excavations to the depths explored can be accomplished using conventional heavy earthmoving equipment.

2.0 PROPOSED CONSTRUCTION

We understand that the project consists of constructing a new Fire Station to the southeast of the intersection of Jenkins Road and Georgia State Route 74 in Fayette County, Georgia. The proposed Fire Station has a footprint of approximately 10,800 SF with a proposed finish floor elevation of 990 feet msl, which will result in "cuts" of about 2 feet and "fills" of about 4 feet to reach finish grade. We assume that the structure will be single-story with a concrete slab-on-grade, structural steel and masonry wall construction. Maximum column and wall loads will not exceed 100 kips and 3 kips per foot of wall, respectively. The conceptual plan shows concrete pavement drive areas around the building with two entrances on Jenkins Road, and a smaller asphalt parking lot on the north and east sides of the building. The site plan attached shows borings located within a proposed IMG Water Tank at the rear of the site. The findings and recommendations for the Water Tank will be provided in a separate report.

No other details of the proposed construction were available at the time this report was prepared.

3.0 METHODS OF EXPLORATION

To evaluate the subsurface conditions, the property was explored by a combination of a visual site reconnaissance and drilling eight (8) soil test borings to depths ranging from 10 to 15 feet below the existing grade. The borings were located in the field by measuring distances and estimating directions from identifiable site features. Therefore, their locations as shown on the Site and Boring Location Plan in the Appendix, should be considered approximate.

The borings were advanced by twisting continuous hollow stem auger flights into the ground. At selected intervals, Standard Penetration Resistance Testing (SPT) was performed in general accordance with ASTM standard D-1586, and soil samples were collected for visual classification. The results of the penetration tests, when properly evaluated, provide an indication of the relative consistency of the soil being sampled, the potential for difficult excavation, and the soil's ability to support loads. A more detailed description of the drilling and sampling process is included in the Appendix of this report.

Soil samples recovered during the drilling process were returned to the office where they were classified in general accordance with the Unified Soil Classification System (USCS). Detailed descriptions of the materials encountered at each boring location, along with a graphical representation of the Standard Penetration Test results, are shown on the Soil Boring Records, in the Appendix. Elevations on the Boring Records were interpolated from the topographical contours on the plan provided to us, and should be considered approximate.

4.0 SITE DESCRIPTION, GEOLOGY AND SUBSURFACE CONDITIONS

4.1 Site Description

The approximately 6.6 acre site is roughly rectangular in shape and is located to the southeast of the intersection of Jenkins Road and Georgia State Route 74 in Tyrone, Fayette County, Georgia. Topography of the site is moderately sloping from a high point of 1008 ft msl in the southwest corner, to a low point of 970 ft msl in the northeast corner. The site is open and covered with grass in the northern one-third, with the southern portion being overgrown with tall grasses and small trees. Along the east property line, near the front of the site, a sewage lift station is present, surrounded by a chain-link fence. A sanitary sewer line and several manholes are located along the west and north sides of the site. An asphalt driveway enters the northeast corner of the site that leads to an adjacent church property to the east.

4.2 Geology

The site is located in the Piedmont Physiographic Province of Georgia. The residual soils in the Piedmont are the result of the chemical and physical weathering of the underlying parent rock. The weathering profile usually results in fine grained clayey silts and silty clays near the surface, where

weathering is more advanced. With depth, sandy silts and silty sands are found, often containing mica. Below the residual soils, partially weathered rock is often found as a transition above relatively unweathered rock. In local practice, partially weathered rock is arbitrarily defined as residual soils with Standard Penetration Resistances in excess of 100 blows per foot (50 blows per 6 inches), and which can be penetrated by a power auger.

4.3 Subsurface Conditions

4.3.1 Topsoil

All borings except B-6 initially encountered from 1.5 to 3 inches of topsoil and associated root zone.

4.3.2 Previously Placed Fill

Borings B-2 and B-7 encountered previously placed fill immediately beneath the topsoil to a depth of 2 feet below the existing grade. The fill was classified as medium dense clayey silty SAND (SM) and firm clayey sandy SILT (ML), with Standard Penetration Test (SPT) results of 8 to 21 blows per foot (bpf). Based on the SPT results, the soils represented by these samples would be considered moderately to well compacted.

4.3.3 Cultivated Soils

Cultivated soils were encountered beneath the surficial topsoil in all borings except B-2, B-6 and B-7. The cultivated soils were found to extend to a depth of about 18 inches beneath the ground surface and were predominantly silty SAND (SM). Standard Penetration Test (SPT) results ranged from 9 to 15 blows per foot (bpf).

4.3.4 Residuum

All borings encountered residual soils either beneath cultivated soils, previously placed fill or at the ground surface. The residuum was classified as firm to stiff sandy SILT and clayey SILT (ML) and loose to medium dense clayey SAND (SC). Standard Penetration Test results ranged from 5 to 45 blows per foot, with 12 to 15 bpf being typical.

No rock or partially weathered rock was encountered to the depths drilled. No groundwater was encountered to the depths drilled. Groundwater fluctuations of 5 feet or more are common in this geology.

The conditions described in the preceding paragraphs, and those shown in the Appendix, have been based on interpolation of the results of the previously described data using generally accepted principles and practices of geotechnical engineering. However, conditions in this geology may vary intermediate of the tested locations, and even more so on previously developed property.

Although individual soil test borings are representative of the subsurface conditions at the precise boring locations on the day drilled, they are not necessarily indicative of the subsurface conditions at other locations or other times. The nature and extent of variation between the borings may not become evident until the course of construction. If such variations are then noted, it will be necessary to reevaluate the recommendations of this report after on-site observation of the conditions.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the data gathered during this exploration, our understanding of the proposed construction, our experience with similar site and subsurface conditions and generally accepted principles and practices of geotechnical engineering. Should the proposed construction change significantly from that described in this report, we request that we be advised so that we may amend these recommendations accordingly. This report, and the conclusions and recommendations provided herein, are provided exclusively for the use of Mallett Consulting, LLC and is intended solely for design of the referenced project.

5.1 Site Preparation

As an initial step in site preparation, all trees and unwanted vegetation should be removed, stumps grubbed and organic topsoil stripped.

All areas to receive fill should be evaluated prior to fill placement. The approval process should include proofrolling the subgrade with a fully loaded tandem axle dump truck (20 tons) during a period of dry weather and under the observation of the geotechnical engineer. Any areas which "pump" or "rut" excessively under the weight of the proofrolling vehicle should be further evaluated, and may require undercutting or other remediation. The proofrolling can occasionally detect pits where stumps or other debris may have been buried, or other areas where weak surface conditions exist. No areas of weak surface soils were detected in our reconnaissance or during the subsurface exploration.

5.2 Earthwork

The residual soils on the property visually appear suitable for reuse as structural fill. Moisture control may be necessary, primarily depending on the weather conditions at the time of construction.

Construction on cultivated soils is significantly impacted by weather conditions immediately prior to construction. Cultivated soils are, by nature, loose sandy materials. These soils are underlain by undisturbed residual soils which have much lower permeability. During inclement weather the cultivated soils tend to absorb more infiltration and “shed” less water than relatively undisturbed residual soils. The additional infiltrated water is subsequently trapped in the cultivated soils as it is difficult to pass into the underlying lower permeability residual soils. Thus, during periods of inclement weather the cultivated soils tend to become excessively wet and unstable under the weight of earth moving equipment. Should construction take place during drier, warmer seasons the impact of constructing on cultivated soils will probably be negligible. However, if earthwork construction were to take place in the winter or after periods of heavy rain we expect that the cultivated soils, where encountered, will be relatively saturated and unstable thus preventing compaction of the first few overlying lifts of fill to be placed. If such a condition occurs the cultivated soils will have to be stripped and either “wasted” or spread and allowed to dry prior to their reuse as fill.

All structural fill should be compacted to at least 95 percent of the soil's standard Proctor maximum dry density, as determined by ASTM standard D-698. The upper foot of fill which will support pavements or slabs should be compacted to at least 98 percent of the soil's standard Proctor maximum dry density for improved support. In areas which are at or above the finished grade, and which will support pavements or slabs, the upper 8 inches immediately below these systems should be scarified and recompacted to the 98 percent criteria. Structural fill should be free of organic material, have a plasticity index (PI) less than 20 and contain rock sizes no larger than 4 inches.

Density testing should be performed by a soils technician to determine the degree of compaction and verify compliance with the project specifications. For underfloor areas, at least one field density test should be made per 5000 square feet of fill area for each two foot lift. Testing frequency should be increased in confined areas. Areas which do not meet the compaction specifications should be recompacted to achieve compliance. In confined areas, such as utility trenches, the use of portable compaction equipment and thin lifts of 3 to 4 inches may be required to achieve compaction.

Excavations can be accomplished using conventional heavy earthmoving equipment such as dozer assisted pans, and excavations of rock and partially weathered rock are not anticipated.

5.3 Foundations

We recommend that the structures be supported on conventional shallow foundations bearing on the existing soil or new structural fill. A design bearing pressure of 3,000 psf is recommended. The recommended bearing pressure is based on correlations with the Standard Penetration Test results. These correlations imply that a maximum total settlement of one inch is possible and a maximum differential settlement of half the total settlement is possible. Minimum foundation widths of 24

inches and 18 inches are recommended for individual column and strip footings, respectively, to preclude the possibility of localized soil bearing failures. Exterior foundations should bear at least 18 inches below external grades to prevent frost damage.

As with any construction, all foundation excavations should be evaluated by a geotechnical engineer, who will verify that the design bearing pressure is available intermediate of boring locations, and that foundations are not immediately underlain by worse conditions. If the engineer finds localized conditions of weak or organic soil below an individual footing, it should be undercut or a lower bearing pressure used, depending upon the actual conditions found.

5.4 Soil Supported Slabs

Floor slabs may be soil supported, subject to the subgrade preparation and earthwork recommendations contained in this report. Crushed stone is not needed to support the slab loads and is considered optional.

5.5 Temporary and Permanent Slopes

Permanent and temporary slopes may be used to accommodate grade changes. If temporary slopes are used, they should be constructed no steeper than 1.5H:1V for slopes less than 15 feet high. Permanent slopes should be constructed no steeper than 2H:1V. These recommendations are based on our experience with similar conditions and no detailed slope stability analyses have been performed. Buildings should be set back at least 10 feet from the top of slopes; a minimum 5 foot setback is considered sufficient for pavement areas. All finished slopes should be suitably protected from erosion.

6.0 QUALIFICATIONS OF RECOMMENDATIONS

This evaluation of the geotechnical aspects of the proposed design and construction has been based on our understanding of the project and the data obtained during this study. The general subsurface conditions used in our evaluation were based on interpolation of the subsurface data between the borings. Regardless of the thoroughness of a subsurface exploration, there is the possibility that conditions will differ between boring locations, that conditions are not as anticipated by the designers, or that the construction process has modified the soil conditions. Therefore, experienced soil engineers and technicians should evaluate earthwork and foundation construction to verify that the conditions anticipated in design actually exist. Otherwise, we assume no responsibility for construction compliance with the design concepts, specifications or recommendations.

The recommendations contained in this report have been developed on the basis of the previously described project characteristics and subsurface conditions. If project criteria change, we should be permitted to determine if the recommendations should be modified. The findings of such a review will be presented in a supplemental report. Even after completion of a subsurface study, the nature and extent of variation between borings may not become evident until the course of construction. If such variations then become evident, it will be necessary to reevaluate the recommendations of this report after on-site observations of the conditions.

These professional services have been performed, the findings derived, and recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all warranties either expressed or implied. This company is not responsible for the conclusions, opinions or recommendations of others based on these data.

The scope of services does not include any environmental assessment for the presence or absence of hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site. Any statements in this report or on the test boring records regarding odors, staining of soils, or other unusual conditions observed are strictly for general information only.

APPENDIX

SOIL TEST BORING PROCEDURES (ASTM D-1586)

The soil test borings were advanced by twisting continuous auger flights into the ground. At selected intervals, soil samples were obtained by driving a standard 1.4 inch I.D., 2.0 inch O.D., split tube sampler into the ground. The sampler was initially seated six inches to penetrate any loose cuttings created in the boring process. The sampler is then driven an additional 12 inches by blows of a 140 pound "hammer" falling 30 inches. The number of blows required to drive the sampler the final foot is designated the Standard Penetration Resistance.

The samples recovered were sealed in glass jars and were transported to the office where they were classified by an engineer in general accordance with the Unified Soil Classification System (USCS).

**CORRELATION OF STANDARD PENETRATION RESISTANCE
WITH RELATIVE COMPACTNESS AND CONSISTENCY**

Sand and Gravel

Standard Penetration Resistance Blows / Foot	Relative Compactness
-----	-----
0 - 4	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
Over 50	Very Dense

Silt and Clay

Standard Penetration Resistance Blows / Foot	Relative Compactness
-----	-----
0 - 1	Very Soft
2 - 4	Soft
5 - 8	Firm
9 - 15	Stiff
16 - 30	Very Stiff
31 - 50	Hard
Over 50	Very Hard

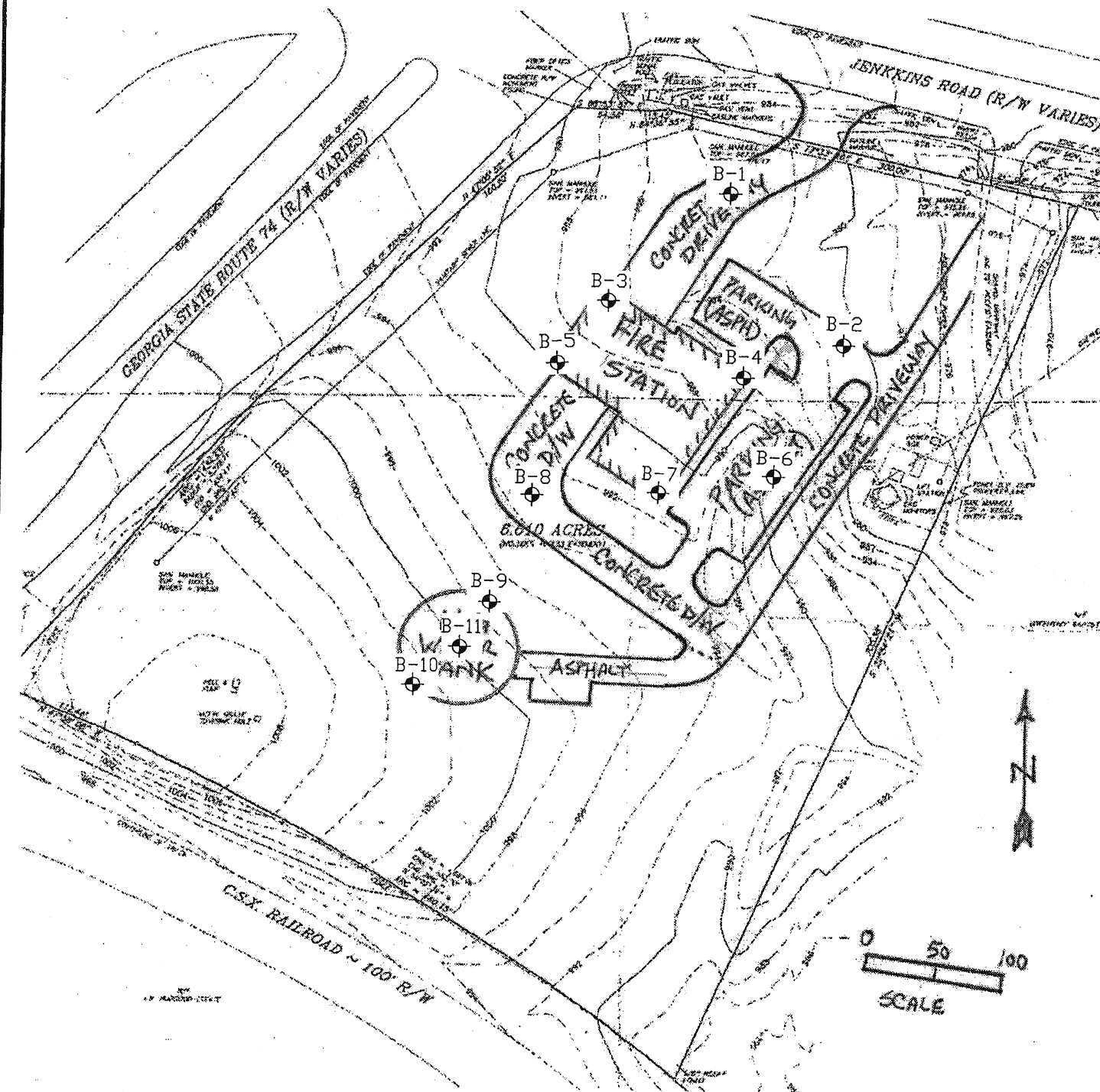


FIGURE 1: SITE AND BORING LOCATION PLAN

LEGEND:







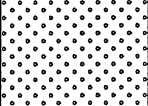
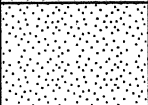
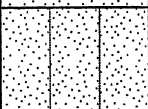

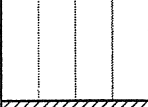




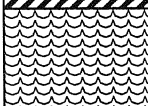
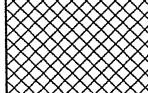
SOIL TEST BORING LOCATION

SCALE: 1 inch = 100 feet

**PIEDMONT
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**JENKINS ROAD FIRE STATION
AND WATER TANK
TYRONE, GEORGIA
PGC PROJECT NO. 111177**

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
			ALLUVIUM		
FILL				FILL	MATERIAL PLACED BY MAN

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)									
			10	20	30	40	60	80	100			
	TOPSOIL: 3 inches	984	●									9
	CULTIVATED SOIL: Stiff brown tan clayey medium to fine sandy SILT (ML)		●									13
5	RESIDUUM: Stiff to very stiff orange brown clayey medium to fine sandy SILT (ML)	979	●									18
	Very stiff tan yellow clayey medium to fine sandy SILT (ML)		●									19
10	Boring terminated at 10 feet.	974										
15												
20												
25												
30												
35												
40												
45												
50												
55												
60												
65												

SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK GPI PIEDMONT GEO.GDT. 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

▽ Groundwater level at time of boring
▼ Groundwater level - 24 hrs

Ⓢ Caved depth - 24 hrs
■ Undisturbed sample

BORING NUMBER
DATE DRILLED
PROJECT NUMBER
PAGE

B-1
7/13/2011
111177
1 of 1

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK.GPJ PIEDMONT GEO.GDT 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

BORING NUMBER

B-2

DATE DRILLED

7/16/2011

PROJECT NUMBER

111177

PAGE

1 of 1

▽ Groundwater level at time of boring

▽ Groundwater level - 24 hrs

⬮ Caved depth - 24 hrs

■ Undisturbed sample

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK.GPJ PIEDMONT GEO.GDT 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

BORING NUMBER

B-3

DATE DRILLED


7/16/2011


PROJECT NUMBER


111177


PAGE

1 of 1

 Groundwater level at time of boring

 Caved depth - 24 hrs

 Groundwater level - 24 hrs

 Undisturbed sample

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)										
			10	20	30	40	60	80	100				
	TOPSOIL: 2 inches	986		15									14
	CULTIVATED SOIL: Medium dense tan yellow silty medium to fine SAND (SM)			15									
5	RESIDUUM: Very stiff orange yellow brown clayey SILT (ML)	981		20									22
													31
10	Stiff tan yellow white fine sandy SILT (ML), mica	976		25									12
15		971		25									14
	Boring terminated at 15 feet.												
20													
25													
30													
35													
40													
45													
50													
55													
60													
65													

SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK.GPJ PIEDMONT GEO.GDT - 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

BORING NUMBER

B-4

DATE DRILLED

7/16/2011

PROJECT NUMBER

111177

PAGE

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▽ Groundwater level at time of boring

C Caved depth - 24 hrs

▼ Groundwater level - 24 hrs

■ Undisturbed sample

Jenkins Road Fire Station & Water Tank

DEPTH		DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

BORING NUMBER

B-5

DATE DRILLED

7/13/2011

PROJECT NUMBER

111177

PAGE

1 of 1

▽ Groundwater level at time of boring

⬛ Caved depth - 24 hrs

▽ Groundwater level - 24 hrs

⬛ Undisturbed sample

SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK CPTI PIEDMONT GEO. GDT 7/21/11

PIEDMONT

GEOTECHNICAL CONSULTANTS, INC. **P**
GC

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION				ELEV.	PENETRATION (BLOWS PER FOOT)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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	RESIDUUM: Stiff brown orange yellow medium to fine sandy SILT (ML), micaceous				990																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</

SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK G.P.I. PIEDMONT GEO. G.D.T. 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

BORING NUMBER

B-6

DATE DRILLED

7/16/2011

PROJECT NUMBER

111177

PAGE

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▽ Groundwater level at time of boring

▼ Groundwater level - 24 hrs

C Caved depth - 24 hrs

■ Undisturbed sample

PIEDMONT

GEOTECHNICAL CONSULTANTS, INC. **P**
GC

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)									
			10	20	30	40	60	80	100			
	TOPSOIL: 1.5 inches	992	●									8
	FILL: Firm brown orange clayey medium to fine sandy SILT (ML), few rock fragments		●									
5	RESIDUUM: Very stiff orange yellow clayey SILT (ML)	987		●								18
	Loose yellow tan clayey silty medium to fine SAND (SM), micaceous		●									8
10	Stiff orange brown fine sandy SILT (ML), micaceous	982		●								10
15		977		●								13
	Boring terminated at 15 feet.											
20												
25												
30												
35												
40												
45												
50												
55												
60												
65												

OIL BORING RECORD - 111177 JENKINS ROAD FIRE STATION & WATER TANK GP1, PIEDMONT, GEO. GPT. 7/21/11

SOIL BORING RECORD 111177 JENKINS ROAD FIRE STATION & WATER TANK.GPJ PIEDMONT GEO.GDT 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

BORING NUMBER

B-7

DATE DRILLED

7/13/2011

PROJECT NUMBER

111177

PAGE

1 of 1

▽ Groundwater level at time of boring

⬮ Caved depth - 24 hrs

▼ Groundwater level - 24 hrs

■ Undisturbed sample

Jenkins Road Fire Station & Water Tank

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION (BLOWS PER FOOT)									
			10	20	30	40	60	80	100			
	TOPSOIL: 2 inches	993										
	CULTIVATED SOIL: Medium dense brown orange tan clayey medium to fine SAND (SC)											
5	RESIDUUM: Dense brown dark red white silty medium to fine SAND (SM), micaceous, trace clay	988										
	Very stiff brown tan orange fine sandy SILT (ML)											
10	Boring terminated at 10 feet.	983										
15												
20												
25												
30												
35												
40												
45												
50												
55												
60												
65												

SOIL BORING RECORD - 111177 JENKINS ROAD FIRE STATION & WATER TANK GPJ, PIEDMONT GEO. GDT. 7/21/11

REMARKS: No groundwater encountered at time of boring.

SOIL BORING RECORD

▽ Groundwater level at time of boring
▼ Groundwater level - 24 hrs

⬮ Caved depth - 24 hrs
■ Undisturbed sample

BORING NUMBER
DATE DRILLED
PROJECT NUMBER
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